

## FIVE NEW SPIDERS OF THE GENUS NEOANTISTEA

By W. J. GERTSCH

In the following pages are described five new species of *Neoantistea*, a genus established by the present writer in 1934 (Gertsch, American Museum Novitates, No. 712, pp. 18-31) for a small group of spiders in the family Hahniidæ. Since that time, when only four well-marked species were known, a considerable number of specimens have accumulated in the collection of the American Museum of Natural History, from which material all the present new forms come and in which collection are deposited all the type specimens. In addition, two species were described from the Southwest by Chamberlin and Ivie in 1942 (Bull. Univ. Utah, vol. 32, pp. 28 and 29, figs. 59 to 63); and one from Maryland in 1945 by Muma (Proc. Biol. Soc. Washington, vol. 58, pp. 101 and 102, figs. 18 and 19). The number of known species is now twelve.

***Neoantistea procteri*, new species**

(Fig. 1)

MALE.—Total length, 3.15 mm.

	Carapace	Front	Sternum	Labium	Maxillæ	Abdomen
Length .....	1.60	0.18	0.80	0.20	0.40	1.70
Width .....	1.36	0.75	0.93	0.28	0.37	1.30

Carapace dark chestnut brown, bright and shining, with a narrow marginal black seam and marked with numerous radiating dark lines and streaks. Midline and clypeus with the usual long black setæ, the carapace otherwise quite smooth. Eye tubercles black. Sternum, labium and chelicerae reddish brown, clothed with fine black hairs. Maxillæ, coxæ and legs yellowish brown, but much of the yellow integument of the legs is masked by wide black annulæ which are on the femora, tibiæ and metatarsi. Abdomen black above but showing numerous pale grayish spots which coalesce behind to form chevrons, and with two large brownish muscle scars visible near the middle. Venter of the abdomen paler. Spinnerets ringed with dusky, except the middle pair which are all pale.

Structure typical, in very close agreement with *agilis*. Clypeus equal in height to a diameter of the anterior lateral eye. First row of eyes strongly procurved as seen from in front, the median very large, almost touching, their bases scarcely farther from the laterals which are smaller in the ratio 22:16. Posterior row of eyes strongly procurved, the line along the caudal edges of the laterals falling just in front of the front edges of the median, the median

eyes separated by slightly more than their diameter (15/13), a diameter from the equal lateral eyes. Median ocular quadrangle slightly longer than broad (48/46), slightly narrowed behind (46/41), the front eyes very much larger in the ratio 22: 14. Chelicerae normal, the lower margin of the right one with three contiguous teeth, the lower margin of the left chelicera with a somewhat larger tooth and a small contiguous denticle. Maxillae produced at the outer tip into a spurred process similar to that found in *radula*.

Legs of normal length for the genus, evenly but sparsely clothed with long fine hairs. First femur with a single, first tibia with a double series of long hairs which originate from rather conspicuous elevated bases. Second leg with similar tubercles but less strongly developed. First leg: femur, 1.40 mm., patella, 0.60 mm., tibia, 1.00 mm., metatarsus, 0.96 mm., tarsus, 0.60 mm. Tibia and patella of the fourth leg, 1.50 mm.

Abdomen of normal shape. Spiracle much nearer the genital furrow than the spinnerets.

Male palpus as shown in Figure 1.

Type Locality.—Male holotype from St. John's River near Geneva, Florida, April 11, 1938 (W. J. Gertsch).

It gives me great pleasure to dedicate this pretty species to Dr. William Procter of Bar Harbor, Maine.

*Neoantistea procteri* belongs in the series in which the patellar spur of the palpus is a relatively short spine. Both *radula* and *barrowsi* of the eastern United States belong in this group but they are much larger species and have more robust palpi. The teeth on the lower margin of the chelicerae are probably abnormal in the single specimen of *procteri* known, especially since in this group we ordinarily find a single stout tooth on the lower margin.

***Neoantistea jacalana*, new species**

(Fig. 2)

FEMALE.—Total length, 2.95 mm.

	Carapace	Front	Sternum	Labium	Maxillae	Abdomen
Length .....	1.25	0.20	0.75	0.17	0.33	1.95
Width .....	1.10	0.60	0.75	0.26	0.30	1.45

Coloration essentially as in *agilis*. Carapace strongly marked with radiating black lines and spots. Sternum yellowish brown, dusky, especially on the margins. Legs light yellowish brown, marked with wide black rings as in most of the species of the genus. Abdomen mostly black above, varied with numerous, small white markings, with indistinct chevrons in the caudal half and a pair of rather small brown muscle scars.

Structure very much as in *agilis*. Clypeus equal in height to nearly the diameter of an anterior lateral eye. First row of eyes procurved, a line along the upper edges of the laterals, cutting a small portion of the lower edges of

the median. The eyes scarcely separated and of equal size. Second eye row procurved, the median separated by their full diameter, about  $\frac{2}{3}$  as far from the somewhat larger lateral eyes. Median ocular quadrangle as broad as long, slightly narrowed in front (32/27), the eyes subequal in size. Chelicerae with three teeth on the lower margin. Maxillae broadly rounded at outer apical margin.

Legs of average length. First leg: femur, 1.05 mm., patella, 0.42 mm., tibia, 0.80 mm., metatarsus, 0.76 mm., tarsus, 0.52 mm. Tibia and patella of the fourth leg, 1.40 mm.

Abdomen normal, the spiracle much nearer the genital furrow than the spinnerets. Epigynum as illustrated in Figure 2.

Type Locality.—Female holotype and three female paratypes from twenty miles south of Jacala, Hidalgo, Mexico, July 6, 1944 (L. I. Davis).

This strongly marked species is similar in size and general appearance to *N. agilis*. It is distinct in the eye relations and especially in the details of the epigynum.

***Neoantistea alachua*, new species**

(Figs. 3 and 4)

MALE.—Total length, 2.70 mm.

	Carapace	Front	Sternum	Labium	Maxillae	Abdomen
Length .....	1.25	0.30	0.73	0.16	0.30	1.60
Width .....	1.10	0.65	0.80	0.23	0.30	1.10

Coloration and structure in very close agreement with *agilis* Keyserling, and most other species.

Clypeus equal in height to scarcely the diameter of an anterior median eye. First eye row strongly procurved as usual, the eyes nearly contiguous, the median larger in the ratio 19:14. Posterior eye row procurved, a line along the caudal edges of the lateral slightly cutting the front edges of the median eyes, the median separated by their diameter, scarcely as far from the equal laterals. Median ocular quadrangle slightly broader than long (38/36), narrowed behind in the same ratio. Chelicerae with a single tooth on the lower margin. Maxillae essentially as in *agilis* but the small tubercles on the outer margin more strongly developed.

Legs normal, the first pairs with only weakly developed cusps on the ventral surface. First leg: femur, 1.15 mm., patella, 0.45 mm., tibia, 0.80 mm., metatarsus, 0.80 mm., tarsus, 0.53 mm. Tibia and patella of the fourth leg, 1.33 mm.

Palpus as illustrated in Figure 3.

FEMALE.—Total length, 3.40 mm.

	Carapace	Front	Sternum	Labium	Maxillae	Abdomen
Length .....	1.40	0.20	0.76	0.18	0.32	2.30
Width .....	1.15	0.70	0.86	0.28	0.32	1.70

Coloration and structure in very close agreement with the male.  
Epigynum as illustrated in Figure 4.

Type Locality.—Male holotype from five miles west of Gainesville, Florida, April 18, 1938 (W. J. Gertsch). Female allotype from Gainesville, Florida, taken from a quail crop. Male paratype from Gainesville, Florida, June 28, 1938 (H. K. Wallace).

This species differs from *agilis* in having the lower margin of the chelicerae armed with a single enlarged tooth. The male palpi are quite similar but the tibial apophysis in *alachua* is proportionately much longer, somewhat more slender and the patellar spur is shorter. The female has the anterior median eyes clearly larger and differs further in the details of the epigynum.

***Neoantistea mulaiki*, new species**

(Figs. 5 and 6)

MALE.—Total length, 4.60 mm.

	Carapace	Front	Sternum	Labium	Maxillæ	Abdomen
Length .....	2.20	0.40	1.25	0.32	0.60	2.60
Width .....	1.90	1.10	1.40	0.42	0.55	1.90

Coloration as in *riparia* and related species. Carapace bright reddish brown, the margins pale, variegated as usual with dusky radiating lines. Chelicerae and labium dark reddish brown. Sternum, maxillæ and legs nearly concolorous, light yellowish brown, the legs showing the normal dark annuli rather faintly. Abdomen pale beneath, the dorsum with the usual dusky pattern of chevrons and spots and the conspicuous brown muscle scars.

Structure close to that of *riparia*. Clypeus equal in height to diameter of anterior lateral eye. First row of eyes procurved, the line along the lower edges of the median cutting through the centers of the laterals, the eyes contiguous or nearly so, the medians larger in the ratio 24:20. Second row of eyes strongly procurved, the median separated by the long diameter, slightly nearer the equal lateral eyes. Median ocular quadrangle longer than broad (52/46), as wide behind as in front. The posterior eyes smaller in the ratio 24:18. Chelicerae with the lower margin armed with a single tooth. Maxillæ produced at outer apex into a short process bearing four or five tubercles.

First legs armed beneath with a double series of long fine hairs which originate from strongly developed tubercles. First leg: femur, 1.90 mm., patella, 0.95 mm., tibia, 1.50 mm., metatarsus, 1.33 mm., tarsus, 0.80 mm. Tibia and patella of the fourth leg 2.25 mm. long.

Palpus as illustrated in Figure 5.

FEMALE.—Total length, 4.00 mm.

	Carapace	Front	Sternum	Labium	Maxillæ	Abdomen
Length .....	1.60	0.30	0.96	0.23	0.40	2.70
Width .....	1.45	0.75	1.50	0.35	0.36	2.00

Coloration and structure in very close agreement with the male.

Eyes in the first row subequal in size. Posterior median eyes separated by their full diameter, about half as far from the equal lateral eyes. Median ocular quadrangle longer than broad (46/42), as wide in front as behind, the front eyes larger in the ratio 20:16. Lower margin of the furrow of the chelicera with three teeth.

Legs normal. First leg: femur, 1.30 mm., patella, 0.55 mm., tibia, 0.90 mm., metatarsus, 0.85 mm., tarsus, 0.60 mm.

Epigynum as illustrated in Figure 6.

Type Locality.—Male holotype, female allotype and paratypes from Monterrey, Mexico, June 10, 1936 (L. I. Davis).

Records.—Female paratype, 20 miles north of Limon, Tamaulipas, Mexico, April 9, 1939 (L. I. Davis). Male and female paratypes from Saltillo, Mexico, July 3, 1936 (L. I. Davis). Male paratype from San Antonio, Texas, December 28, 1935 (L. I. Davis). Female paratype from San Antonio, Texas, August, 1935 (L. I. Davis). Female paratypes, Llano, Texas, July 9, 1936 (L. I. Davis). Female paratype, Cotulla, Texas, July 8, 1936 (A. M. & L. I. Davis). Female paratype, Conroe, Texas, August 14, 1938 (Ciralyn & A. M. Davis). Male, female paratypes, Comfort, Texas, July 8, 1936 (L. I. Davis). Female paratype, east of Edinburg, Texas, January 26, 1934 (S. Mulaik). Female paratype, Edinburg, Texas, mud daubers nest (S. Mulaik). Female paratype, 32 miles southeast of Laredo, Texas, April 10, 1936 (Haynes). Female paratype, Port Bolivar, Texas, June 5, 1936 (S. Mulaik). Male paratypes, off Bird Island, Cameron County, Texas, May 19, 1934 (S. Mulaik).

This is a species of the *riparia* group. The male palpus has a small, pointed spur on the patella which is much farther removed from the base of the segment than in *santana* Chamberlin and Ivie. The tubes of the female epigynum are small and much convoluted, the pattern being different in almost every specimen.

***Neoantistea crandalli*, new species**

(Figs. 7 and 8)

MALE.—Total length, 4.50 mm.

	Carapace	Front	Sternum	Labium	Maxillæ	Abdomen
Length .....	2.10	0.45	1.20	0.32	0.60	2.70
Width .....	1.80	0.90	1.40	0.44	0.55	1.90

Coloration and structure essentially as in *riparia* and allied species. Clypeus equal in height to the diameter of an anterior lateral eye. First

row of eyes procurved, the median larger than the laterals in the ratio 25: 22. Second eye row recurved, the median separated by more than the diameter (22/17), half as far from the equal lateral eyes. Median ocular quadrangle as broad as long, slightly narrowed in front (50/52), the front eyes much larger than the posterior medians in the ratio 25: 16. Chelicerae with a single large tooth on the ventral margin. Maxillae with the outer angular process set with five tubercles.

Legs as in *riparia*, the first two pairs armed with the usual double series of stout elevations from which spring curved black hairs. First leg: femur, 2.10 mm., patella, 0.95 mm., tibia, 1.75 mm., metatarsus, 1.50 mm., tarsus, 0.85 mm. Tibia and patella of the fourth leg, 2.35 mm.

Palpus as illustrated in Figure 7.

FEMALE.—Total length, 3.80 mm.

	Carapace	Front	Sternum	Labium	Maxillae	Abdomen
Length .....	1.70	0.30	1.00	0.26	0.45	2.40
Width .....	1.45	0.70	1.08	0.32	0.40	1.90

Structure and coloration in close agreement with the male.

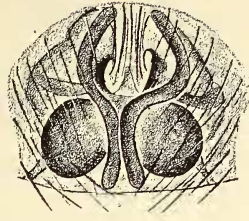
Epigynum as illustrated in Figure 8.

Type Locality.—Male holotype and paratype from Patagonia, Arizona (Crandall). Female paratype from White House Canyon, Santa Rita Mountains, Arizona, October 15, 1936 (O. Bryant). Male paratype from Madera Canyon, Santa Rita Mountains, Arizona, July 16, 1940 (W. J. Gertsch).

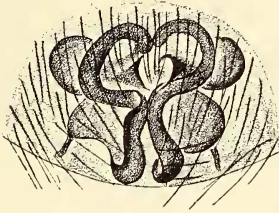
This species is closely allied to *Neoantistea riparia* Keyserling. It differs in having the tibial apophysis more strongly curved. The male paratype is somewhat smaller (carapace, 1.90 mm. long) and has the first legs less robust and with only moderately developed tubercles beneath the basal segments. In the epigynum of the female the tubules are relatively slender, at most one-fourth as wide as the spherical receptacles.

#### PLATE I

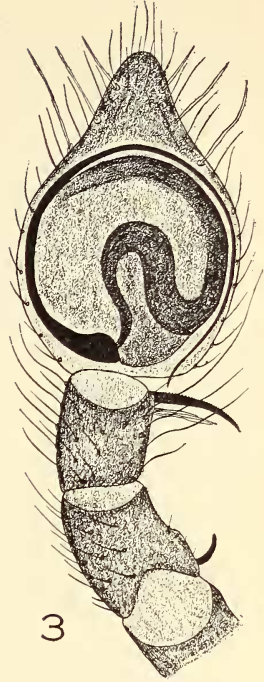
- Figure 1. *Neoantistea procteri*, new species, left male palpus, ventral view.  
 Figure 2. *Neoantistea jacalana*, new species, epigynum.  
 Figure 3. *Neoantistea alachua*, new species, left male palpus, ventral view.  
 Figure 4. *Idem*, epigynum.  
 Figure 5. *Neoantistea mulaiki*, new species, left male palpus, ventral view.  
 Figure 6. *Idem*, epigynum.  
 Figure 7. *Neoantistea crandalli*, new species, left male palpus, ventral view.  
 Figure 8. *Idem*, epigynum.



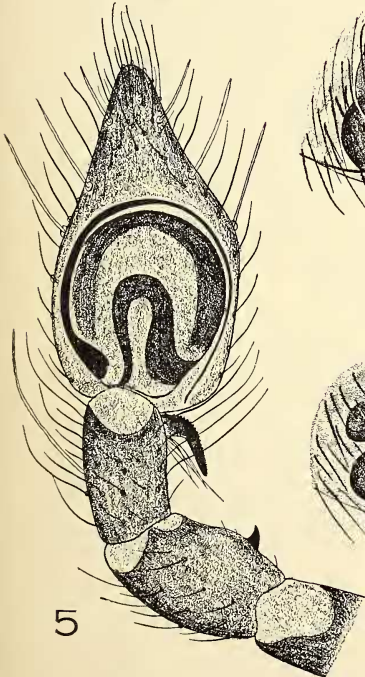
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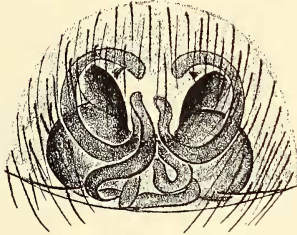
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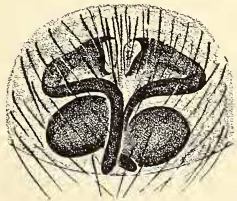
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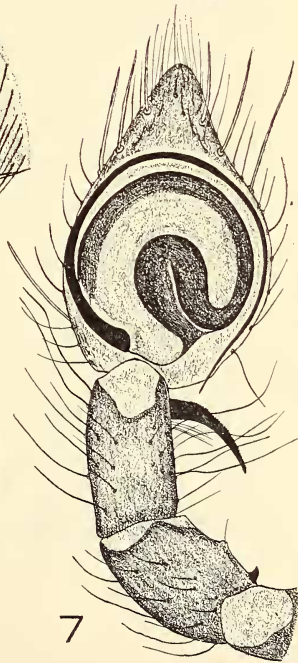
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